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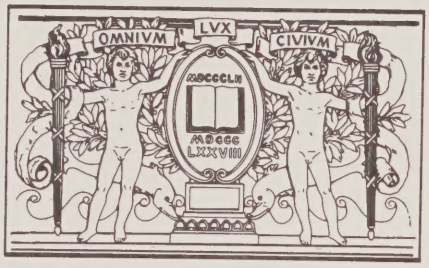

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THE ECONOMIES OF THE NATION'S LARGE CITIES:

DIVERSITY, CONFLUENCE, INTERDEPENDENCE,

1969-1984-2000

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INTRODUCTION

The economies of the nation's 35 largest cities[1] have undergone significant changes over the past fifteen years as seen by an examination of employment patterns in their metropolitan areas[2] for which trends are compared between 1969 and 1984 Projections to the year 2000 indicate further changes.

The changes that have occurred in the economic base of large cities reflect trends in the nation's economy and in the geographic distribution of economic activities between large metropolitan areas, smaller ones and non-metropolitan areas. The national trend of most significance has been the decline of Manufacturing's share of total employment and the relative increase of employment in service-producing activities.[3]

Large American cities have functioned increasingly as centers for a wide range of service-producing activities linked to the presence of corporate headquarters, financial centers, producer services, distributive services, and in a few instances non-profit and government activities. While the sixties and seventies initially witnessed the migration of manufacturing production jobs out of urban areas to suburban areas and later to non-metropolitan areas, manufacturing firms nevertheless continued to concentrate a number of their coordination and management activities in urban centers. These latter activities have spun off increases in employment in a

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[1] These cities are those whose population was over 400,000 persons in 1979, 1980 and 1984. See Table 1.

[2] The Appendix contains the list of metropolitan areas used for analysis. Primary Metropolitan Statistical Areas, Metropolitan Statistical Areas and the New England County Metropolitan Area (for Boston) were used.

[3] Despite this decline of the share of Manufacturing in total employment, the Manufacturing share of inflation-adjusted GNP has remained fairly constant over the post-war period. A greater share of value-added no longer involves production and, instead, involves a number of service activities which may appear outside of the Manufacturing sector. Furthermore, less employment is needed to produce the same amount of output in Manufacturing.

wide range of service-producing activities in large urban areas.[4] Some of the largest cities, New York, Los Angeles, Chicago and San Francisco function as service centers to the national economy. Others such as Boston, Houston, Philadelphia and Atlanta service a more regional economy encompassing surrounding states. Yet others, such as Kansas City provide services to a sub-regional economy, such as a state of sub-state area. Perhaps what distinguishes the service activities of cities most is whether their services are diversified, or whether they are specialized and serve the needs of another, often goods producing, sector. For example, the Finance and Services sectors of Dallas cater to the activities of a broader range of industries than those of Detroit whose fortunes remain tied to the auto industry.

In addition to being characterized by their function as service centers, large cities also continue to display a wide array of goods-producing activities in Manufacturing, for example Detroit or San Jose, or natural resource mining and extraction as do Dallas, Denver and Houston. Cities can be categorized according to these activities as well. In this paper, areas are broadly categorized according to their predominant source of economic activities. For this task, we used the location quotient for each industrial sector which is an indicator of the degree of specialization of a city's, or a metro areas's, economy relative to the overall specialization of the U.S. economy. For example, the location quotient of the Finance sector in Boston is the share of Finance employment in Boston total employment in relation to the share of U.S. Finance employment in total U.S. employment. Therefore, the location quotient of an industry in a city is affected by the growth of the industry in the city and in the U.S. and by the growth of total employment in the city and in the nation.

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[4] Thierry Noyelle and Thomas Stanback, The Economic Transformation of American Cities, (Totowa, NJ :Allenhold and Osmun, 1983). The following discussion also relies on arguments made by these authors.

While many of the large cities have continued and even developed their activities as service centers over the past twenty-five years, some have not and instead have remained, or developed further as, primarily goods-producing centers such as Buffalo, El Paso, San Antonio or San Jose.[5] As such, their economies have been more susceptible to the fortunes of the manufacturing industries which constitute the core of their jobs base. Buffalo's job base has suffered severe reductions due to the decline of traditional manufacturing activities in the area. In contrast, San Jose has benefited from the growth of electronics manufacturing and related technology intensive industries.

In the following, the past and future economic structures of 35 large cities and their metropolitan areas are examined. First, an historical analysis for the period 1969 to 1984 documents the decline of manufacturing activities and the growth of service production. This analysis also documents the emergence of new industrial centers and the decline of old ones. It assesses the employment trends which underlie the differential economic performance of metropolitan areas primarily in terms of unemployment rates.[6] This section is followed by an analysis of employment projections from 1983 to the year 2000 which identifies metropolitan areas and sectors with potentially high employment growth rates, and changes in economic structure over the period.[7]

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[5] El Paso and San Antonio have also had a large base of military employment.

[6] The analysis for the 1969-84 period is drawn from "The Economies of Boston and 34 Other Large Cities: Comparative Analysis," Francoise J. Carre and Jeff Brown, BRA Policy Development and Research, November 1987. Data are from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System database.

[7] The analysis for the 1983-2000 period is based on "The Economies of Boston and 34 Large Cities in the Year 2000," Francoise J. Carre, BRA Policy Development and Research, April 1988. The data source is the U.S. Bureau of Economic Analysis OBERS projections.

EXECUTIVE SUMMARY

The diverse economies of the nation's thirty-five largest cities have experienced growth, confluence and interdependence over the past fifteen years as seen by an examination of employment patterns in the period 1969 to 1984. Projections for their metropolitan areas to the year 2000 indicate retention of diversity, as well as a trend toward confluence.

The shifts that have occurred in the metropolitan economies of large cities reflect trends in the nation's economy, most noticeably, the movement away from Manufacturing and towards service-producing activities defined as the Finance, Services and Transportation sectors. Large urban centers have functioned increasingly as centers for a wide range of service-producing activities linked to the presence of corporate headquarters, financial centers, producer services, distributive services and non-profit and government activities.

Nevertheless, many of the 35 economies under study continue to display a wide array of goods-producing activities. For example, Detroit and San Jose still specialize in Manufacturing, and Dallas, Denver, and Houston are centers of activity for natural resource mining and extraction. For some, goods-producing activities have remained the core of their job base with beneficial results in the case of San Jose and detrimental ones in the case of Buffalo, for instance.

For the 1969-1984 period, economic performance is primarily assessed in terms of employment growth, export roles and unemployment rates. The latter is affected by past and current employment growth as well as by the size and growth of the area's labor pool, and the nature of its industries. Those economies which fared well in the 1980s were often those with an economic base covering a broad range of sectors or specialized in a few sectors experiencing moderate but steady growth. Boston, San Francisco and Washington,DC were mainly service-producing areas. Atlanta, Kansas

City, and Nashville were metro areas which in 1984 were slightly specialized in each of a broad range of economic activities.

The areas with high unemployment rates in the second half of the 1980's were either areas which had lost a significant share of their main industrial base, like Detroit and Cleveland, or whose economic base was shaped by the activity of one sector which happened to experience a downturn, such as, petroleum in New Orleans, and Houston, or as in El Paso, federal military and civilian employment.

Because of the increasing shift toward service-producing activities in Finance, Services and Transportation, areas which in 1969 displayed great relative specialization in these activities (Boston, New York, San Francisco and Washington,DC) appeared specialized to a lesser degree, by 1984. This occurred not because of decreased service production in these areas but because of greater service production in the national economy and in other urban areas.

So-called rustbelt areas experienced great changes during the period 1969-84. Areas such as Buffalo, Cincinnati, Cleveland, Chicago, Detroit, and Pittsburgh had shed significant numbers of Manufacturing jobs since the mid-seventies and experienced high unemployment rates through the 1980's. Service-producing activities as a whole have emerged as a slowly expanding complementary source of economic activity for the economies of the rustbelt. The Services sector per se, because of its fast growth in the national economy and its propensity to concentrate in large urban centers has often been perceived as a most promising substitute for Manufacturing and other goods-producing sectors. In fact, rustbelt areas did experience employment growth in the Services sector during the later period 1978-84. However, several of the areas most severely affected by Manufacturing decline, such as Detroit, Buffalo, Pittsburgh and Cleveland, were among those showing the lowest

employment growth in Services. Many others were below the national trend of Services employment growth during the 1978-84 period.

For the period 1983-2000 the national economic growth is projected to continue but at a lesser rate with the smaller increase in the nation's population and labor force. Between 1983 and 1990, the average annual growth rate of total U.S. non-farm employment would be 2.10 percent. In the later period, 1990-2000, the average annual rate would be lower, reaching 1.22 percent. This pattern of faster growth in the earlier part of the period and slower growth in the later part is replicated in projections for most areas in the study. No metro area will experience an aggregate employment decline over the period.

By the year 2000, the five areas with the largest population and employment base will be Los Angeles, New York, Chicago, Philadelphia and Boston. These areas will not have the fastest growing employment, however. In terms of annual employment change, Phoenix, San Jose, San Diego, and Houston will grow fastest, while Cleveland, Pittsburgh, New York, Detroit and Baltimore are projected to grow slowest.

The metro areas with the highest share of employment in service-producing activities by the year 2000 are projected to be: New York, San Francisco, Washington,DC, Chicago, New Orleans, Denver, Los Angeles, Milwaukee, Boston and Philadelphia. Milwaukee and Philadelphia are old industrial centers which will have achieved greater specialization as service centers. The other eight areas have historically been service centers; they will maintain high employment shares in service-producing activities even though employment growth in these sectors for the eight areas is projected to be below the national trend.

Manufacturing is the only sector projected to experience employment declines in a few areas. Particularly in the latter period 1990-2000, the Manufacturing decline is projected to affect New York, Cleveland, Buffalo, Chicago, Pittsburgh,

Philadelphia and Detroit. In spite of this decline, the economies of Detroit and Cleveland will have retained by 2000 a high degree of specialization in Manufacturing. With the exception of El Paso, manufacturing centers with the highest projected rates of Manufacturing employment growth (San Jose, Boston, San Jose, Minneapolis and Seattle) will be specialized in the Durable Goods sector of Manufacturing.

By the year 2000, a number of rustbelt areas will have shares of employment in service-producing industries which are higher than for the national economy. They include: Milwaukee, Philadelphia, Pittsburgh and Buffalo. Detroit's share of service-producing activities, however, is projected to be barely above the national average. Yet, the heavier weight of service-producing activities in rustbelt economies will be primarily due to the increased weight of the Services sector only, and not to an increased preponderance of Finance and Transportation employment.

For most of the new industrial centers (such as San Jose, El Paso, Fort Worth or Nashville), the year 2000 shares of employment in service-producing industries are projected to be slightly above the national average. Notable exceptions are San Jose and Fort Worth which rely on the activities of their respective, geographically proximate, service specialty areas: San Francisco and Dallas.

SECTION ONE. THE PERIOD 1969 TO 1984

Over the period 1969 to 1984, the U.S. economy accelerated its shift away from goods-producing sectors - Manufacturing, Construction, and Mining - towards services-producing sectors which comprise Finance[8], Services[9], and Transportation and public utilities.[10] From 1969 to 1984, employment in these service-producing industries as a share of total employment increased across all 35 metropolitan areas, just as it did in the national economy where it rose from 29 percent to 36 percent. The volume of employment in service-producing industries increased in all metropolitan areas regardless of the composition of their economic base.

Over the period 1969-84, manufacturing employment in the U.S. as a whole declined at an average annual rate of -0.24 percent. The decline was not uniform over the whole period, however. Manufacturing employment declined at a rate of -1.96 percent between 1969 and 1972, grew at an annual rate of 1.32 percent from 1972 to 1978, and declined again between 1978 and 1984 at an annual rate of -0.91 percent. Moreover, the 1969-84 decline was not uniform across metropolitan areas. Traditional industrial metropolitan areas such as Buffalo, Cincinnati, Cleveland, Chicago, Detroit, and Philadelphia shed significant numbers of manufacturing jobs over the period, while others such as San Jose experienced significant job growth mostly in the electronics manufacturing and related sectors.

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[8] Finance, Insurance and Real Estate.

[9] Hotel, medical, and educational services, and business, professional and personal services.

[10] In the remainder of this text, the term "service-producing activities" refers to the three sectors: Finance, Services and Transportation. The term "Services" denotes the sector of personal, professional and health and education services only. As a rule, names of individual sectors start with a capital letter.

Assessing economic performance

Broad shifts in the industrial mix of individual metropolitan areas over the 1969-1984 period help account for their differential economic performance in recent years. Economic performance is broadly measured in terms of unemployment rate and employment growth.[11] The unemployment rate of an area is affected by past and current employment growth but also by the size and growth of its labor pool, as well as by the nature of its industries. An area with high job growth can also experience high unemployment if its labor force grows even more rapidly than employment, through in-migration for instance. Phoenix, for example, has experienced both high job growth and high unemployment. Conversely, an area with moderate but sustained job growth, accompanied by a slowly growing work force, will experience low unemployment. Boston exemplifies this case.

The industrial mix, as represented by the distribution of employment, also bears on unemployment. Thus, cities with a significant specialization in traditional Manufacturing activities are bound to have experienced more unemployment than those specialized either in new industrial activities or in growing segments of Services. Similarly, cities specialized in high-growth but highly cyclical economic activities, be they goods-producing or service-producing, are also likely to experience high unemployment at times.

In terms of unemployment, metropolitan areas which fared well in the 1980's were often those with an economic base covering a broad range of sectors or specialized in a few sectors experiencing moderate but steady growth. Boston, San Francisco and Washington,DC were mainly service-producing cities although Boston also had a slight degree of specialization in manufacturing by 1984. Atlanta, Kansas City and

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[11] There are other indicators of economic well-being such as the level of wages or per capita income or the share of full-time and part-time employment.

Nashville were metro areas which in 1984 were slightly specialized in each of a broad range of economic activities: Construction, Transportation, Wholesale and Retail Trade, and Finance; with the addition of Manufacturing for Nashville and of Services for both Nashville and Kansas City.

The metro areas with high unemployment rates in the second half of the 1980's were either areas which had lost a significant share of their main industrial base, like Detroit and Cleveland, or whose economic base was shaped by the activity of one sector which happened to experience a downturn, such as, Mining in New Orleans, Pittsburgh, and Houston, or as in El Paso, federal military and civilian employment.

Several metro areas could experience high unemployment in the second half of the 1980's following employment growth in the period 1978-84. In terms of aggregate employment change for the 1978-84 period, Cleveland, Detroit, and Pittsburgh experienced declining annual rates but New Orleans did not. For the entire 1969-84 period, the first three metro areas experienced very little employment growth while New Orleans experienced moderate growth. New Orleans exemplifies the case in which high unemployment rates can follow aggregate employment growth.

Metropolitan areas specializing in service production

Metropolitan areas with a large share of total employment in service-producing activities -- such as New York, San Francisco, Boston and Washington, DC-- displayed an array of performance in terms of unemployment in the 1980's. Clearly none was among those metropolitan areas with the highest unemployment rates. Some such as San Francisco, the area with the highest share of employment in service sectors in 1969 and 1984, and Boston were among those with low unemployment rates.

Location quotients[12] indicate that many service oriented metropolitan areas no

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[12] For example, the location quotient of the Finance sector in the Boston area is the share of Finance employment in the Boston metropolitan area total employment in relation to the share of U.S. Finance employment in total U.S. employment.

longer had, by 1984, a striking specialization in service-producing sectors compared to the US economy. This pattern occurs even though, in many of these areas, service industries experienced employment growth and had acquired a greater weight in the total employment of each metropolitan area. This decline in relative specialization occurred because the growth rate of employment, between 1969 and 1984, in service-producing sectors of the US economy was much greater than that of other industries and, therefore, than that of total US employment. As a result, service-producing sectors substantially increased their share of total US employment. They also increased their share of employment in metro areas specialized in services but did so less rapidly, hence the decline in relative specialization noted above.

The Finance sector and, to some extent, the Transportation and public utilities sector are those most affected by this declining trend in relative specialization, as a consequence of the pervasive growth experienced in most cities. However, the category of services, services to individuals and to businesses, grew as a share of employment as fast, if not faster, in many service oriented metropolitan areas than in the US as a whole. Thus, these metropolitan areas have retained their high location quotient in this sector and in some instances have increased it.

Among metro areas with a specialization in Services, Boston stood out with a slight relative specialization in Manufacturing which had increased by 1984. By 1969, Boston had already lost a significant share of its traditional Manufacturing activities. Most of the growth in Manufacturing employment which the metro area experienced between 1969 and 1984 was in new industries which were expanding and not declining.

Therefore, the location quotient of an industry in an area is affected by the growth of the industry in the metro area and in the US and by the growth of total employment in the metro area and in the nation. The location quotient for an industry is an indicator of the specialization of an area relative to the overall specialization of the US economy.

The rustbelt metropolitan areas

So-called rustbelt metro areas experienced great changes during the period 1969-84. Areas such as Buffalo, Cincinnati, Cleveland, Chicago, Detroit, Philadelphia, and Pittsburgh had shed significant numbers of manufacturing and mining jobs since the mid-seventies and experienced high unemployment rates through the 1980's. For instance, between 1969 and 1984, the Detroit metro area lost 177,205 manufacturing jobs at an annual rate of -2.14 percent. The largest decline took place during the 1978-84 period, with an annual rate of -4.66 percent. Between 1969 and 1984, the Buffalo metro area lost 55,004 jobs in manufacturing at an annual rate of 3.35 percent; the largest decline took place in the periods 1969-1972 and 1978-84 with annual rates of decline of -5.22 percent and -4.82 percent respectively. Cleveland lost 104,028 manufacturing jobs at an annual rate of -2.59 percent over the 1969-84 period; -4.89 percent for 1969-1972 and -4.24 percent for the recent period 1978-84.

In spite of significant employment declines in Manufacturing, many rustbelt metro areas maintained a high degree of relative specialization in Manufacturing.[13] Essentially, while manufacturing employment had declined in these areas, the sector's relative weight in these areas' total employment remained high compared to Manufacturing's relative weight in the U.S. economy.

The most salient question concerning the economies of rustbelt cities is whether they were able to replace employment lost in Manufacturing with employment in other sectors, particularly service-producing ones. In the later period 1978-84, the metropolitan areas of some rustbelt cities experienced employment growth in a few sectors while others continued to suffer economic stagnation and even decline.

Service-producing activities as a whole have been an alternate source of economic activity for the metro areas of the rustbelt. However, the extent to which

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[13] As indicated by high Manufacturing location quotients for 1984.

service-producing activities in Finance, Transportation or Services per se contribute to the economic activity of an area depends on whether the different types of services they generate are consumed locally or are "exported", that is serve businesses outside the area, or individuals who come in the area to obtain a service, and also rests on whether the activities of the sector are tied to the fortunes of another local industry, often one producing goods.

The Services sector per se, because of its fast growth in the national economy and of its propensity to concentrate in large urban centers has often been perceived as a most promising substitute for Manufacturing and other goods-producing sectors. In fact, rustbelt metro areas did experience employment growth in the services sector during the later period 1978-84. However, several of the metro areas most severely affected by Manufacturing decline, such as Detroit, Buffalo, Pittsburgh and Cleveland, were among those showing the lowest positive changes in employment in Services. Many others were below the national trend of Services employment growth during the 1978-84 period.

The Finance sector is also one in which large cities and their metro ares have continued to specialize. The Finance sector only grew in those metro areas in which its activity was not primarily connected to that of a goods-producing industry. For example, the Finance sectors of the Buffalo, Chicago, Milwaukee, New Orleans and Philadelphia metro areas grew between 1978 and 1984 at annual rates close to the national trend. Yet, the Detroit metro area did not experience any growth in Finance employment during the period, possibly because of the close ties of the sector to the automobile industry and its supplier network.

New manufacturing centers

Because Manufacturing growth in a few areas was contrary to the national trend, metropolitan areas such as San Jose, a center of high technology manufacturing, Los

Angeles, and Minneapolis-St.Paul also experienced an increase in their Manufacturing location quotient, a quotient level which had already indicated a slight specialization in Manufacturing in 1969. Other metro areas such as Phoenix or Dallas experienced growth in Manufacturing employment but did not become more specialized because other sectors of their economy grew as quickly. Finally, some areas with little manufacturing specialization such as El Paso[14], Oklahoma City, San Antonio, San Diego, and Washington,DC experienced Manufacturing employment growth.

Areas with heavy Mining activity

Mining[15] sector employment is present and highly concentrated in only a few metropolitan areas. Coal mining areas sustained heavy job losses between 1969 and 1984, with the worse decline occurring in the latter part of the period. For instance, the Pittsburgh metropolitan area lost 1,411 jobs in mining between 1969 and 1984 but the area had, first, gained 2,924 jobs between 1969 and 1980 and then lost 4,335 jobs between 1980 and 1984.[16] The Pittsburgh metro area also lost 107,940 jobs in the manufacturing sector, mostly in the steel industry, putting this area among those with the highest unemployment rates during the 1980's.

Metro areas of the sun-belt which specialized in petroleum production and related activities had disparate experiences over the period. Many retained or even increased their high Mining (petroleum) location quotients. Most experienced high levels of employment growth in the oil industry and the sectors related to it such as Wholesale Trade and Construction. By the late 1980's, however, mining areas could be found among those with highest and those with lowest rates of unemployment in 1986. Dallas and Fort Worth metropolitan areas had low rates, while Houston and New

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[14] With the exception of Non-durable goods production.

[15] Mining and extraction of petroleum, gas, coals, metals and minerals.

[16] Data for the mining sector are not available for Pittsburgh for 1978.

Orleans[17] had high rates. Dallas traditionally had a rather diversified economy and functioned as a Finance center for Texas unlike Houston which remained heavily dependent on the oil industry and thus especially vulnerable to the slump in oil prices in the mid-1980s.

Central Cities

The employment picture generated by data on metropolitan economies can be enriched by information on central city counties for the period 1969 to 1984. Central city county employment patterns represent the city's economy and its relative role in the metropolitan area.[18] For 17 of the 35 large cities, their boundaries approximated those of the central city county in which they are located. For these cities, the central county describes closely the city's economy and more detailed data analysis was conducted.

There was great variation across all 35 cities in the share of metropolitan employment accounted for by their central county but all shared the same tendency over time. By 1984, almost all central counties accounted for a smaller share of metropolitan area total employment than in 1969. Nevertheless, all cities expanded their role as centers of service production. By 1984, many cities had either retained, or even increased, their share of total metropolitan area employment in the following sectors: Finance, Services, Transportation, Government and Wholesale and Retail Trade. Table 6 provides the weight of service-producing activities in county employment for the 35 cities. It further illustrates the pervasiveness of the

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[17] Pipe-lines, refining, off-shore drilling.

[18] A central city county is that whose boundaries approximate most closely the city boundaries. Greater details on central city counties employment are presented in Carre and Brown, BRA, November 1987. Only the counties for which city employment accounted for 80 percent of county employment were included for detailed analysis of location quotients and employment trends.

increased role of service-producing activities in all cities regardless of the nature of their other economic activities.

By 1984, central city counties also tended to account for a higher share of metropolitan area earnings by sector than of metropolitan area employment, an indicator of higher wage levels in core cities. City dwellers might be better off than residents of surrounding communities if they are employed in sectors providing those higher earning levels. They would fare less well in cases where they are employed in industries which have reduced their activity in the central city, or which have lower levels of earnings. In the Finance sector, central cities accounted with fair consistency for a higher share of metropolitan area earnings than of metropolitan area employment. For the Services sector, the evidence was more mixed across areas with, for instance, Boston's county (Suffolk) accounting in 1984 for a greater share of metropolitan Services earnings than Services employment while Detroit's county (Wayne) accounted for a lower share.[19]

As table 7 indicates, the period 1972-84 witnessed diverging trends of employment and population in central cities.[20] Only 6 central cities, Baltimore, Cleveland, Detroit, New York, Philadelphia and St. Louis, experienced a decline in employment over the period. However many more central cities, 17 out of 35, lost population from 1972 to 1984. Evidence from another data source[21] indicates that,

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[19] Counties with a share of metro employment in Services which is higher than their share of metro service earnings are likely to be specialized in low-earnings Services such as food services. Conversely, counties with a share earnings which is higher than their share of metro area employment in services are more likely to be specialized in high earnings, high value-added, services. Such specialization is relative only to service jobs in each metropolitan area and not to service employment in other counties, metro areas or the nation.

[20] The year 1972 is used as starting point here because the data series did not include a population figure for central counties for 1969.

[21] See Table 1 on city population levels.

between 1980 and 1984, the population trend reversed in a few cities, most notably in New York City and Boston which experienced population growth.

More detailed analysis was conducted for the 17 cases in which city and county boundaries were close. Location quotients for 17 cities for the following sectors, Finance, Services, Manufacturing, Mining and Transportation, are reported in the Appendix. A location quotient above 1 indicates that the city is relatively specialized in the sector, while a location quotient below 1 means that the city's economy is less specialized in the sector than the national economy. A companion figure, the net export (+) and import (-) role[22] of a sector in a local economy highlights sectors which are likely to export their product; it assumes that if a city specializes in a sector more than the U.S. economy, then some of the sector's output is exported. This figure is reported in tables 8A to 8E. While providing useful guidance, the export/import role is an aggregate figure which cannot account for the fact that a city might export a large share of a sector's output and import a similar but not identical product generated in a different region. Nevertheless, this figure points out broad distinctions in export activity across cities.

These tables document the different geographic concentration of industrial sectors and the diversity of economic functions and net export roles of central cities. For instance, the Mining sector is highly concentrated in a few cities while it is almost non-existent in most others and this concentration has accentuated from 1969 to 1984. Conversely, most cities specialize in the Finance and Services sectors. In 1984, the Finance sector seems, however, to be less concentrated in the 17 cities than in 1969 as shown by a general decline of export roles. Since export roles indicate specialization relative to the national economy, this decline reflects

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[22] See formulas for the location quotient and net export/import role at the bottom of Tables A to E in the Appendix.

partly the increased weight of Finance employment in the nation's economy. Only two central cities out of 17 display any degree of specialization in Manufacturing, a confirmation of the exit of manufacturing activities out of central cities.

For the same 17 central cities, tables 9 and 10 provide average annual rates of employment change for the periods 1969-1984 and 1978-84 for total non-farm employment and for selected sectors. These patterns of employment change underlie the resulting export roles for 1984 discussed above. The total period 1969-84 covers the serious national recessions of the 1970s, the recession of the early 1980s and the following growth which continued through the mid-1980s. For this period, annual rates of total employment growth indicate declines in 4 cities and a maximum growth of 4.66 percent for Houston. South and Southwest cities experienced total employment growth over the period in spite of their well-publicized recent setbacks. Some cities which experienced economic decline over the period and whose economic fortunes turned up after 1978, had barely recovered by 1984. For instance, Boston had just regained its 1969 employment level, while New York City had not done so in spite of a dramatic recovery. Employment trends in individual sectors present a varied picture, however, with Manufacturing declining in most central cities and Finance and Services growing in most.

Table 1. Population of the 35 Largest Cities, 1984, 1980 and 1970

	Population 7/01/84	Rank 1984	Population 4/01/80	Rank 1980	Population 4/01/70	Rank 1970
New York	7,164,742	1	7,071,639	1	7,895,563	1
Los Angeles	3,096,721	2	2,968,579	3	2,811,801	3
Chicago	2,992,472	3	3,005,072	2	3,369,357	2
Houston	1,705,697	4	1,595,138	5	1,233,535	6
Philadelphia	1,646,713	5	1,688,210	4	1,949,996	4
Detroit	1,088,973	6	1,203,369	6	1,514,063	5
Dallas	974,234	7	904,599	7	844,401	8
San Diego	960,452	8	875,538	8	697,471	15
Phoenix	853,266	9	790,160	9	584,303	22
San Antonio	842,779	10	785,927	11	654,153	16
Baltimore	763,570	11	786,741	10	905,787	7
San Francisco	712,753	12	678,974	13	715,674	14
Indianapolis	710,280	13	700,807	12	737,039	12
San Jose	686,178	14	629,402	18	459,913	30
Memphis	648,399	15	646,170	14	623,988	18
Minn.-St.Paul	624,238	16	641,181	15	744,266	11
Washington	622,823	17	638,432	16	756,668	9
Milwaukee	620,811	18	636,298	17	717,372	13
Jacksonville	577,971	19	540,920	23	504,265	27
Boston	570,719	20	562,994	21	641,071	17
Columbus	566,114	21	565,032	20	540,025	23
New Orleans	559,101	22	557,927	22	593,471	20
Cleveland	546,543	23	573,822	19	750,879	10
Denver	504,588	24	492,694	25	514,678	25
Seattle	488,474	25	493,846	24	584,453	21
El Paso	463,809	26	425,259	29	322,261	35
Nashville	462,450	27	455,651	26	426,029	32
Oklahoma City	443,172	28	404,014	32	368,164	34
Kansas City	443,075	29	448,028	28	507,330	26
St.Louis	429,296	30	452,804	27	622,236	19
Atlanta	426,090	31	425,022	30	495,039	28
Fort Worth	414,562	32	385,164	34	393,455	33
Pittsburgh	402,583	33	423,960	31	520,089	24
Cincinnati	370,481	34	385,410	33	453,514	31
Buffalo	338,982	35	357,870	35	462,768	29

Source: US Department of Commerce, Bureau of the Census, State and Metropolitan Area Databook 1986; County and City Data Book 1983.

Table 2: Metropolitan Areas, Employment and Population, 1969, 1972 and 1984
(in thousands)

	Total Employment			Population 1/	
	1969	1972	1984	1972	1984
Atlanta	819.8	915.3	1,417.4	1,808.6	2,380.0
Baltimore	977.5	998.5	1,201.8	2,152.2	2,244.7
Boston	1,765.2	1,778.3	2,302.1	3,755.3	3,695.4
Buffalo	469.2	461.4	465.4	1,112.8	985.3
Chicago	3,035.5	2,952.7	3,244.3	6,139.2	6,128.3
Cincinnati	599.8	600.6	708.2	1,383.7	1,408.1
Cleveland	984.1	940.5	973.5	2,016.9	1,867.0
Columbus	508.3	552.1	682.7	1,185.5	1,279.0
Dallas	798.2	848.1	1,465.7	1,610.1	2,203.7
Denver	525.1	610.7	988.7	1,191.4	1,582.5
Detroit	1,860.0	1,850.1	1,906.2	4,576.9	4,315.8
El Paso	155.4	154.2	221.1	378.4	526.5
Fort Worth	344.4	342.9	574.1	804.6	1,144.4
Houston	861.4	963.1	1,736.3	2,015.5	3,164.2
Indianapolis	528.9	531.7	645.6	1,127.4	1,194.6
Jacksonville	273.5	296.8	426.0	635.7	795.3
Kansas City	651.7	666.3	822.7	1,393.8	1,476.7
Los Angeles	3,359.1	3,349.8	4,458.1	7,056.6	7,901.2
Memphis	372.2	409.6	482.2	857.3	934.6
Milwaukee	649.1	658.2	763.5	1,416.0	1,393.8
Minn. -St.Paul	938.6	980.0	1,356.5	2,004.0	2,230.9
Nashville	339.7	365.1	506.7	732.5	890.3
New Orleans	477.6	499.2	649.7	1,142.4	1,318.8
New York	4,712.8	4,465.4	4,496.3	9,026.7	8,376.9
Oklahoma City	329.7	369.4	551.3	763.2	962.6
Philadelphia	2,151.0	2,132.1	2,328.9	4,837.6	4,768.4
Phoenix	399.3	480.8	916.1	1,087.2	1,714.8
Pittsburgh	964.1	945.7	977.5	2,331.9	2,172.8
San Antonio	394.3	414.4	593.1	941.2	1,188.5
San Diego	616.7	636.9	1,071.5	1,433.1	2,063.9
San Francisco	861.5	841.1	1,117.7	1,467.4	1,541.9
San Jose	438.5	477.3	914.6	1,138.8	1,371.5
Seattle	665.1	613.2	977.1	1,401.6	1,692.0
St. Louis	1,080.5	1,072.1	1,271.5	2,409.6	2,398.4
Washington, DC	1,510.6	1,626.6	2,194.8	3,163.1	3,429.4

1/ The issue of the RGIS database used in this study does not include 1969 population figures.

Source: U.S.Bureau of the Census, Bureau of Economic Analysis, Regional Economic Information System. This is the source for all tables unless otherwise specified.

Table 3: Unemployment Rates in the Nation's Largest Metropolitan Areas, By Census Region, Selected Years, 1984-87
(in percent)

Metropolitan Area	Annual Average			October1/	October1/
	1984	1985	1986	1986	1987
Boston	4.1	3.4	3.3	2.9	2.3
New York	8.1	7.4	7.4	6.3	5.3
Philadelphia	6.8	5.9	5.2	4.7	4.5
Baltimore	6.2	5.3	5.2	4.6	4.5
Washington, D.C.	4.2	3.9	3.5	3.3	3.2
Buffalo	8.7	7.3	7.2	6.0	5.5
Pittsburgh	11.3	9.4	8.0	7.1	6.5
Cleveland	8.9	8.3	7.5	7.5	5.2
Cincinnati	8.3	7.2	6.5	6.0	5.5
Columbus	7.8	6.7	6.1	5.9	4.7
Detroit	10.8	9.1	8.2	7.8	7.0
Milwaukee	6.6	6.4	6.1	3.9	3.2
Chicago	8.4	8.3	7.4	6.9	5.9
Indianapolis	7.1	6.1	5.1	4.5	5.0
Minn.-St.Paul	4.7	4.5	4.2	3.6	4.4
St.Louis	8.1	7.4	7.0	7.1	6.1
Kansas City	5.4	4.6	4.6	4.3	5.0
Memphis	7.3	6.6	6.8	6.3	5.4
Nashville	5.5	4.7	4.9	4.4	4.4
Atlanta	4.8	5.0	4.6	4.4	4.4
Jacksonville	5.7	5.2	5.4	5.4	5.0
New Orleans	9.0	11.0	10.9	11.2	9.1
Oklahoma City	5.6	5.8	6.7	6.7	5.2
Dallas	3.6	4.7	5.7	5.8	5.8
Fort Worth-Arlington	4.0	5.0	6.5	6.6	6.0
El Paso	9.7	10.8	11.5	11.5	9.9
Houston	6.7	7.8	10.3	10.5	7.6
San Antonio	4.9	6.0	7.3	7.5	7.3
Denver	4.8	5.0	6.6	7.0	5.7
Phoenix	3.8	5.1	5.6	5.7	4.7
San Diego	6.0	5.3	5.0	5.0	4.7
Los Angeles	7.9	7.0	6.7	5.9	5.9
San Jose	5.3	5.8	5.8	5.5	4.1
San Francisco	5.3	4.9	4.5	4.3	3.5
Seattle	7.9	6.6	6.5	6.2	5.4
United States	7.5	7.2	6.9	6.6	5.7

Source: U.S. Department of Labor, Bureau of Labor Statistics, December, 1987.

1/ Monthly rates are not seasonally adjusted.

Table 4. Employment in Service-producing Industries1/ as Share of Total Employment in Metropolitan Areas, 1969, 1972, 1978, 1984

(in percent)

	1969	1972	1978	1984
Atlanta	34	35	38	39
Baltimore	29	31	33	38
Boston -Lawrence -Salem -Lowell -Brockton	35	37	39	42
Buffalo	28	30	33	38
Chicago	32	33	36	42
Cincinnati	31	33	33	37
Cleveland	29	32	32	38
Columbus	29	32	34	38
Dallas	34	36	36	40
Denver	34	35	NA	42
Detroit	27	29	31	36
El Paso	24	28	29	31
Fort Worth -Arlington	28	31	32	34
Houston	35	36	36	40
Indianapolis	28	30	33	37
Jacksonville	34	37	36	39
Kansas City	33	34	36	40
Los Angeles -Long Beach	34	35	38	42
Memphis	30	31	34	39
Milwaukee	28	30	34	39
Minneapolis -St. Paul	31	33	NA	39
Nashville	31	32	34	38
New Orleans	39	39	40	43
New York	42	44	48	52
Oklahoma City	30	30	33	33
Philadelphia	31	33	36	40
Phoenix	32	34	35	39
Pittsburgh	32	33	NA	42
San Antonio	26	28	31	34
San Diego	25	29	NA	35
San Francisco	44	46	49	53
San Jose	31	33	34	35
Seattle	31	35	36	40
St. Louis	32	34	36	41
Washington, DC	33	34	37	42
United States	29	30	32	36

Note: "NA" indicates that data were not disclosed.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.

1/Service-producing industries include Finance and real estate, Services and Transportation.

Table 5. Ranking of Metropolitan Areas on Average Annual Change in Non-farm Employment, 1969-84

	AvgAn. % Chg.	Rk.	Rk.Rel. to U.S.	Total Change	%
Phoenix	5.80	1	18	517,598	132.96
San Jose	5.09	2	17	477,642	110.57
Houston	4.83	3	16	877,362	103.03
Denver	4.35	4	15	464,402	89.30
Dallas	4.20	5	14	670,420	85.30
San Diego	3.79	6	13	451,942	74.60
Atlanta	3.77	7	12	600,778	74.32
Oklahoma City	3.58	8	11	222,674	69.52
Fort Worth	3.53	9	10	230,903	68.33
Jacksonville	3.03	10	9	152,861	56.48
Nashville	2.86	11	8	169,092	52.60
San Antonio	2.81	12	7	199,651	51.46
Seattle	2.61	13	6	311,078	47.12
Washington, DC	2.54	14	5	684,334	45.63
Minneapolis - St.Paul	2.54	15	4	419,261	45.57
El Paso	2.44	16	3	66,834	43.62
New Orleans	2.09	17	2	172,636	36.29
Colombus	2.05	18	1	176,078	35.59
UNITED STATES	2.02			29,725,300	34.98
Los Angeles	1.91	19	1	1,099,155	32.80
Memphis	1.82	20	2	112,483	31.04
Boston	1.80	21	3	538,059	30.59
San Francisco	1.76	22	4	256,114	29.83
Kansas City	1.63	23	5	174,593	27.53
Baltimore	1.40	24	6	224,469	23.17
Indianapolis	1.39	25	7	118,502	22.94
Cincinnati	1.14	26	8	109,740	18.57
St. Louis	1.12	27	9	193,177	18.15
Milwaukee	1.11	28	10	115,774	18.01
Philadelphia	0.53	29	11	176,754	8.27
Chicago	0.45	30	12	210,351	6.94
Detroit	0.17	31	13	48,593	2.63
Pittsburgh	0.10	32	14	14,179	1.48
Buffalo	-0.06	33	15	-4,327	-0.93
Cleveland	-0.07	34	16	-9,973	-1.02
New York	-0.31	35	17	-216,564	-4.60

Table 6. Employment in Service Industries1/ as Share of Total Employment in Central Cities2/, 1969, 1972, 1978 and 1984

(in percent)

City	County	1969	1972	1978	1984
Atlanta	Fulton, De Kalb	39	39	41	44
Baltimore	Baltimore City	37	39	42	48
Boston	Suffolk	45	47	53	57
Buffalo	Erie	28	30	33	38
Chicago	Cook	32	33	36	42
Cincinnati	Hamilton	31	33	34	38
Cleveland	Cuyahoga	30	33	34	39
Columbus	Franklin	31	34	36	41
Dallas	Dallas	35	37	37	41
Denver	Denver	38	39	NA	48
Detroit	Wayne	30	32	32	37
El Paso	El Paso	24	28	29	31
Fort Worth	Tarrant	29	31	33	34
Houston	Harris	36	37	37	40
Indianapolis	Marion	30	32	34	38
Jacksonville	Duval	35	37	37	40
Kansas City	Clay, Jackson, Plate	36	37	39	42
Los Angeles	Los Angeles	34	35	38	42
Memphis	Shelby	32	33	35	40
Milwaukee	Milwaukee	29	32	36	42
Minn. -St.Paul	Hennepin, Ramsey	33	35	NA	42
Nashville	Davidson	36	36	39	43
New Orleans	Orleans	44	44	46	49
New York	5 counties3/	NA	NA	49	53
Oklahoma City	Oklahoma	31	32	34	35
Philadelphia	Philadelphia	36	38	43	46
Phoenix	Maricopa	32	34	35	39
Pittsburgh	Allegheny	34	35	38	44
San Antonio	Bexar	26	28	31	35
San Diego	San Diego	25	29	NA	35
San Francisco	San Francisco	47	49	52	56
San Jose	Santa Clara	31	33	34	35
Seattle	Kings	33	37	37	41
St. Louis	St. Louis City	38	40	43	47
Washington	District of Columbia	37	37	39	44

Note: "NA" indicates that data were not disclosed.
1/Include 3 sectors: Finance, Services and Transportation.
2/ Central city counties.
3/Bronx, Kings, New York, Queens and Richmond counties

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

Table 7: Employment and Population in all Central Cities1/, 1972 and 1984

City	County	Total Employment (in thousands) 1972	1984	Population (in thousands) 1972	1984
Atlanta	Fulton, De Kalb	678.2	919.7	1069.7	1116.7
Baltimore	Baltimore City	535.0	517.2	899.8	763.6
Boston	Suffolk	567.8	611.8	736.1	658.8
Buffalo	Erie	461.4	465.4	1112.8	985.3
Chicago	Cook	2732.2	2826.7	5505.9	5270.4
Cincinnati	Hamilton	479.8	535.9	913.9	864.0
Cleveland	Cuyahoga	833.6	821.4	1670.0	1460.6
Columbus	Franklin	427.4	535.4	857.2	893.8
Dallas	Dallas	763.3	1290.3	1353.3	1723.4
Denver	Denver	401.0	505.3	525.8	504.6
Detroit	Wayne	1188.4	990.3	2652.5	2186.1
El Paso	El Paso	154.2	221.1	378.4	526.5
Fort Worth	Tarrant	316.8	531.5	721.9	1010.3
Houston	Harris	910.5	1613.6	1836.3	2747.3
Indianapolis	Marion	439.0	505.1	796.5	774.8
Jacksonville	Duval	266.3	365.4	541.1	612.7
Kansas City	Clay, Jackson, Plate	439.7	495.4	816.4	821.1
Los Angeles	Los Angeles	3349.8	4458.1	7056.6	7901.2
Memphis	Shelby	372.7	437.1	741.1	729.6
Milwaukee	Milwaukee	525.0	552.9	1058.6	954.1
Minn.-St. Paul	Hennepin, Ramsey	812.5	1061.4	1417.0	1437.6
Nashville	Davidson	264.1	357.0	456.3	485.4
New Orleans	Orleans	337.5	356.0	595.0	559.1
New York	5 counties2/	3990.8	3895.2	7835.5	7164.8
Oklahoma City	Oklahoma	302.2	438.0	549.2	622.4
Philadelphia	Philadelphia	997.3	840.3	1893.1	1646.7
Phoenix	Maricopa	480.8	916.1	1087.2	1714.8
Pittsburgh	Allegheny	704.6	725.2	1573.5	1409.8
San Antonio	Bexar	391.2	554.4	876.6	1092.1
San Diego	San Diego	636.9	1071.5	1433.1	2063.9
San Francisco	San Francisco	540.4	660.4	700.2	712.8
San Jose	Santa Clara	477.3	914.6	1138.8	1371.5
Seattle	Kings	534.8	839.8	1138.9	1324.0
St. Louis	St. Louis City	446.6	375.9	579.6	429.3
Washington	District of Columbia	671.6	699.7	743.8	622.8

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

1/ Central city counties.

2/Bronx, Kings, New York, Queens and Richmond counties.

Table 8A. Central Cities1/ Finance Sector Net Export(+) / Import(-) Role, 1969 and 1984, Ranked by 1984 Export Role; Percent Share of Sector Employment Representing Exports

	1969	1984
	Net Export(+)/ Import(-) Role	Net Export(+)/ Import(-) Role
	%	%
San Francisco Co.	59	52
New York 2/	56	50
Boston - Suffolk Co.	58	47
Denver Co.	33	33
Jacksonville - Duval Co.	36	28
Baltimore (independent city)	29	27
Philadelphia Co.	29	20
Indianapolis - Marion Co.	33	20
Houston - Harris Co.	16	18
Oklahoma City - Oklahoma Co.	22	15
San Antonio - Bexar Co.	4	15
Nashville - Davidson Co.	37	13
St. Louis (independent city)	23	11
New Orleans - Orleans Co.	25	8
Memphis - Shelby Co.	-1	4
El Paso Co.	-32	-9
District of Columbia	5	-20

Table 8B. Central Cities1/ Services Sector Net Export(+) / Import(-) Role, 1969 and 1984, Ranked by 1984 Export Role; Percent Share of Sector Employment Representing Exports

	1969	1984
	Net Export(+)/ Import(-) Role	Net Export(+)/ Import(-) Role
	%	%
Boston - Suffolk Co.	28	35
District of Columbia	30	31
San Francisco Co.	23	29
New York 2/	24	26
New Orleans - Orleans Co.	30	26
Philadelphia Co.	17	24
Baltimore (independent city)	16	23
St. Louis (independent city)	23	22
Denver Co.	14	16
Nashville - Davidson Co.	20	15
Memphis - Shelby Co.	10	6
Houston - Harris Co.	17	6
Indianapolis - Marion Co.	-11	1
San Antonio - Bexar Co.	-6	-5
Jacksonville - Duval Co.	4	-6
Oklahoma City - Oklahoma Co.	-2	-10
El Paso Co.	-25	-24

1/ Central city counties.
2/ Bronx, Kings, New York, Queens and Richmond counties.
Note: Analysis based on location quotients, see Appendix.

Table 8C. Central Cities1/ Manufacturing Sector Net Export(+) / Import(-) Role, 1969 and 1984, Ranked by 1984 Export Role; Percent Share of Sector Employment Representing Exports

	1969	1984
	Net Export(+)/ Import(-) Role	Net Export(+)/ Import(-) Role
	%	%
Indianapolis - Marion Co.	17	7
St. Louis (independent city)	13	4
El Paso Co.	-57	0
Nashville - Davidson Co.	-12	-24
Philadelphia Co.	7	-28
Memphis - Shelby Co.	-20	-40
New York 2/	-17	-46
Baltimore (independent city)	-13	-54
Oklahoma City - Oklahoma Co.	-86	-57
Houston - Harris Co.	-38	-62
Jacksonville - Duval Co.	NA	-100
San Antonio - Bexar Co.	-157	-104
Boston - Suffolk Co.	-83	-103
Denver Co.	-65	-110
San Francisco Co.	-125	-126
New Orleans - Orleans Co.	-137	-172
District of Columbia	-664	-673

Table 8D. Central Cities1/ Mining Sector Net Export(+) / Import(-) Role, 1969 and 1984, Ranked by 1984 Export Role; Percent Share of Sector Employment Representing Exports

	1969	1984
	Net Export(+)/ Import(-) Role	Net Export(+)/ Import(-) Role
	%	%
Oklahoma City - Oklahoma Co.	72	84
Houston - Harris Co.	76	83
New Orleans - Orleans Co.	71	77
Denver Co.	49	71
San Antonio - Bexar Co.	-31	9
San Francisco Co.	-684	-164
El Paso Co.	-478	-183
Indianapolis - Marion Co.	-464	-308
Nashville - Davidson Co.	-820	-358
St. Louis (independent city)	-604	-654
Memphis - Shelby Co.	-814	-699
New York 2/	-1135	-870
Jacksonville - Duval Co.	NA	-1759
District of Columbia	NA	-1815
Baltimore (independent city)	NA	-2979
Philadelphia Co.	-8274	-3084
Boston - Suffolk Co.	-3613	-3918

1/ Central city counties.
2/ Bronx, Kings, New York, Queens and Richmond counties.
Note: Analysis based on location quotients, see Appendix.

Table 8E. Central Cities1/ Transportation Sector Net Export(+) / Import(-) Role, 1969 and 1984, Ranked by 1984 Export Role; Percent Share of Sector Employment Representing Exports

	1969	1984
	Net Export(+)/ Import(-) Role	Net Export(+)/ Import(-) Role
	%	%
New Orleans - Orleans Co.	54	46
Denver Co.	40	45
St. Louis (independent city)	35	41
San Francisco Co.	50	39
Jacksonville - Duval Co.	34	35
Memphis - Shelby Co.	17	32
Baltimore (independent city)	35	31
New York 2/	28	28
Boston - Suffolk Co.	27	27
Houston - Harris Co.	29	25
Nashville - Davidson Co.	-2	24
Philadelphia Co.	19	16
Indianapolis - Marion Co.	13	8
El Paso Co.	7	5
Oklahoma City - Oklahoma Co.	13	5
District of Columbia	1	-26
San Antonio - Bexar Co.	-69	-36

1/ Central city counties.
2/ Bronx, Kings, New York, Queens and Richmond counties.
Note: Analysis based on location quotients, see Appendix.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System

Table 9A. Ranking of Cities1/ by Average Annual Percent Change in Total Non-farm Employment, 1969-84

	Avg.Ann. % Chg.	Total Change	%
Harris County - Houston	4.66	797,859	98.10
Oklahoma County	3.18	163,846	60.04
Bexar County - San Antonio	2.70	181,768	49.14
Duval County - Jacksonville	2.67	119,122	48.52
El Paso County	2.44	66,834	43.62
Davidson County - Nashville	2.44	107,844	43.46
Denver County	2.05	132,721	35.65
UNITED STATES	2.02	29,725,300	34.98
Shelby County - Memphis	1.73	98,410	29.25
San Francisco County	0.96	88,372	15.45
Marion County - Indianapolis	0.83	58,844	13.21
Orleans County - New Orleans	0.37	19,070	5.66
Suffolk County - Boston	0.28	24,853	4.23
District of Columbia	0.20	20,987	3.09
Baltimore (Independent city)	-0.35	-28,096	-5.15
New York City - 5 counties	-0.59	-360,125	-8.46
St. Louis (Independent City)	-1.48	-94,358	-20.06
Philadelphia County	-1.58	-227,386	-21.30

Table 9B. Ranking of Cities1/ on Average Annual Percent Change in Finance Employment, 1969-84

	Avg.Ann. % Chg.	Total Change	%
Harris County - Houston	6.95	88,375	173.86
El Paso County	5.77	8,125	132.01
Bexar County - San Antonio	5.57	25,531	125.51
Oklahoma County	4.67	18,131	98.23
Denver County	4.13	24,450	83.59
Shelby County - Memphis	4.10	14,559	82.67
UNITED STATES	3.95	3,692,000	78.80
Duval County - Jacksonville	3.94	15,840	78.59
Davidson County - Nashville	2.24	8,199	39.46
San Francisco County	2.01	25,138	34.71
Marion County - Indianapolis	1.64	9,667	27.57
Baltimore (Independent city)	1.43	9,572	23.80
Orleans County - New Orleans	0.97	3,684	15.57
Suffolk County - Boston	0.80	9,223	12.63
District of Columbia	0.65	3,803	10.19
New York City - 5 counties	0.48	37,801	7.43
Philadelphia County	-0.37	-4,214	-5.37
St. Louis (Independent City)	-0.46	-2,136	-6.71

1/ Central city counties.

Table 9C. Ranking of Cities1/ by Average Annual Percent Change in Services Employment, 1969-84

	Avg.Ann. % Chg.	Total Change	%
Harris County - Houston	5.70	231,506	129.52
Bexar County - San Antonio	4.65	62,374	97.69
Oklahoma County	4.59	46,591	96.06
El Paso County	4.36	20,186	89.62
Denver County	4.15	66,115	84.09
Duval County - Jacksonville	3.90	36,061	77.60
Davidson County - Nashville	3.90	43,718	77.44
UNITED STATES	3.83	12,253,000	75.77
Marion County - Indianapolis	3.57	50,169	69.24
San Francisco County	3.44	88,314	66.13
Shelby County - Memphis	3.33	43,302	63.45
Suffolk County - Boston	2.83	76,705	51.95
District of Columbia	2.22	68,232	38.97
Baltimore (Independent city)	2.15	44,341	37.68
Orleans County - New Orleans	1.93	28,740	33.16
New York City - 5 counties	1.49	252,025	24.83
Philadelphia County	0.96	35,587	15.38
St. Louis (Independent City)	0.33	5,519	5.01

Table 9D. Ranking of Cities1/ by Average Annual Percent Change in Manufacturing Employment, 1969-84

	Avg.Ann. % Chg.	Total Change	%
El Paso County	3.31	14,311	63.03
Oklahoma County	2.17	12,824	37.90
Bexar County - San Antonio	2.08	12,038	36.13
Harris County - Houston	1.39	31,197	23.03
UNITED STATES	-0.24	-718,500	-3.51
Davidson County - Nashville	-0.40	-2,962	-5.79
San Francisco County	-1.18	-9,505	-16.30
Shelby County - Memphis	-1.45	-12,803	-19.73
Denver County	-1.68	-11,591	-22.39
District of Columbia	-1.97	-5,250	-25.78
Marion County - Indianapolis	-2.00	-32,145	-26.12
Suffolk County - Boston	-2.52	-23,414	-31.77
Orleans County - New Orleans	-2.64	-10,768	-33.01
New York City - 5 counties	-4.12	-390,970	-46.80
St. Louis (Independent city)	-4.16	-58,353	-47.17
Baltimore (Independent city)	-4.45	-54,748	-49.49
Philadelphia County	-5.66	-152,847	-58.25
Duval County - Jacksonville	NA	NA	NA

1/ Central city counties.
Note: "NA" indicate that data are missing for beginning or end year.
Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.

Table 10A. Ranking of Cities1/ by Average Annual Percent Change in Total Non-farm Employment, 1978-84

	Avg.Ann. % Chg.	Total Change	%
Bexar County - San Antonio	3.99	115,429	26.46
Harris County - Houston	3.32	287,075	21.68
Oklahoma County	3.32	77,741	21.66
Duval County - Jacksonville	2.58	51,649	16.50
Davidson County - Nashville	2.41	47,356	15.35
El Paso County	2.15	26,389	13.63
Denver County	2.12	59,752	13.42
Suffolk County - Boston	1.83	62,972	11.47
UNITED STATES	1.78	11,511,900	11.16
San Francisco County	1.76	65,676	11.04
New York City - 5 counties	1.11	250,155	6.86
Shelby County - Memphis	0.85	21,489	5.20
Marion County - Indianapolis	0.54	16,164	3.31
District of Columbia	0.13	5,491	0.79
Baltimore (Independent city)	-0.06	-1,824	-0.35
Orleans County - New Orleans	-0.46	-9,949	-2.72
Philadelphia County	-0.67	-34,628	-3.96
St. Louis (Independent City)	-2.29	-56,047	-12.98

Table 10B. Ranking of Cities1/ by Average Annual Percent Change in Finance Employment, 1978-84

	Avg.Ann. % Chg.	Total Change	%
Harris County - Houston	6.51	43,873	46.02
Bexar County - San Antonio	6.17	13,837	43.19
El Paso County	4.67	3,423	31.53
Oklahoma County	3.98	7,632	26.36
Denver County	3.91	11,049	25.91
UNITED STATES	3.60	1,600,400	23.62
Suffolk County - Boston	3.45	15,134	22.56
Shelby County - Memphis	3.21	5,561	20.90
New York City - 5 counties	3.00	88,766	19.40
Davidson County - Nashville	2.44	3,903	15.57
San Francisco County	1.86	10,218	11.70
Duval County - Jacksonville	1.85	3,754	11.64
Marion County - Indianapolis	1.74	4,408	10.93
Baltimore (Independent city)	1.72	4,850	10.79
District of Columbia	0.37	908	2.26
Philadelphia County	-0.30	-1,333	-1.76
Orleans County - New Orleans	-1.10	-1,882	-6.44
St. Louis (Independent City)	-1.24	-2,315	-7.23

1/ Central city counties.

Table 10C. Ranking of Cities1/ by Average Annual Percent Change in Services Employment, 1978-84

	Avg.Ann. % Chg.	Total Change	%
Bexar County - San Antonio	6.04	37,426	42.15
Harris County - Houston	5.26	108,635	36.02
Duval County - Jacksonville	5.22	21,705	35.68
Davidson County - Nashville	4.62	23,783	31.13
San Francisco County	4.27	49,239	28.52
Oklahoma County	4.24	20,975	28.30
UNITED STATES	4.19	6,206,000	27.93
El Paso County	4.01	8,972	26.59
Marion County - Indianapolis	3.92	25,291	25.98
Baltimore (Independent city)	3.85	32,884	25.47
New York City - 5 counties	3.44	232,515	22.48
Shelby County - Memphis	3.40	20,257	22.19
District of Columbia	3.15	41,264	20.42
Suffolk County - Boston	2.80	34,218	18.00
Orleans County - New Orleans	2.36	15,059	15.01
Philadelphia County	1.75	26,351	10.95
St. Louis (Independent City)	-0.71	-5,087	-4.21
Denver County	NA	NA	NA

Table 10D. Ranking of Cities1/ by Average Annual Percent Change in Manufacturing Employment, 1978-84

	Avg.Ann. % Chg.	Total Change	%
El Paso County	3.45	6,819	22.58
Oklahoma County	2.17	5,635	13.74
Bexar County - San Antonio	1.67	4,298	10.47
Duval County - Jacksonville	1.35	2,364	8.40
Davidson County - Nashville	0.08	240	0.50
San Francisco County	-0.17	-488	-0.99
District of Columbia	-0.27	-248	-1.61
UNITED STATES	-0.91	-1,114,200	-5.33
Harris County - Houston	-1.86	-19,828	-10.63
Suffolk County - Boston	-2.06	-6,675	-11.72
Orleans County - New Orleans	-3.06	-4,486	-17.03
Marion County - Indianapolis	-3.33	-20,473	-18.38
New York City - 5 counties	-3.42	-103,277	-18.85
Shelby County - Memphis	-3.47	-12,304	-19.11
Denver County	-3.88	-10,766	-21.13
Baltimore (Independent city)	-5.18	-21,001	-27.32
Philadelphia County	-5.34	-42,744	-28.07
St. Louis (Independent City)	-6.50	-32,474	-33.20

Note: "NA" indicate that data are missing for beginning or end year.
Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System.
1/ Central city counties.

SECTION TWO. PROJECTIONS TO THE YEAR 2000

The projections analyzed here are based on historical data to the year 1983. They allow primarily for a comparison of employment levels and rates of growth across metropolitan areas; they do not include projected rates of unemployment.

The national economic growth of the 1980's is projected to continue to the year 2000. From 1983 to 2000, national total non-farm employment is expected to grow by 31,596,000 jobs. This corresponds to a 30.68 percent growth, at an average annual rate of 1.59 percent. In the national economy, as in that of most metropolitan areas in the study, this growth will not be evenly distributed throughout the period. Between 1983 and 1990, the average annual growth rate of total non-farm employment will be 2.10 percent. In the later period, 1990-2000, the average annual rate will be lower, reaching 1.22 percent. This pattern of faster growth in the earlier part of the period and slower growth in the later part is replicated in projections for most metro areas in the study. Also, all metro areas will experience growth, rather than decline, in total non-farm employment over the 1983-2000 period.

All metro areas will experience a growth in their ratio of employment to population which indicates the extent to which a metro area functions as an employment center for its region. In the nation, this ratio will rise from 45.68 percent in 1983 to 55.51 percent in 2000.

By the year 2000, the five largest metropolitan areas will be Los Angeles with a population of 8,870,200, New York with 8,433,200 persons, Chicago with 6,130,000 persons, Philadelphia with 4,914,200 persons and Boston with 4,301,300 persons. They will also continue to be those with the largest employment. Los Angeles will have 5,004,300 jobs, New York 4,813,900 jobs, Chicago 3,528,100 jobs, Boston 2,784,700 job and Philadelphia 2,540,900 jobs (see table).

However, the largest metro areas will not be among those experiencing the fastest annual growth rates in employment over the period 1983 to 2000 and a number of them will be among those slowest growing. In terms of annual growth rates of non-farm employment, metropolitan Phoenix is anticipated to grow by 3.43 percent, San Jose by 2.70 percent, San Diego by 2.44 percent, Houston by 2.40 percent, and Denver by 2.38 percent. The slowest growing metro areas will be Cleveland with 0.69 percent, Pittsburgh with 0.78 percent, New York with 0.79 percent, Detroit with 0.85 percent and Baltimore with 0.91 percent.

While the largest metro areas will not grow fastest, a number of them will still be among those experiencing the largest increase in total employment since their jobs base is so large. Los Angeles will gain a total of 1,006,000 jobs, Houston 786,000 jobs, Boston 720,000 jobs, New York 606,000 jobs and Phoenix 598,500 jobs. Metro areas with the smallest jobs gains will be El Paso with 57,000 jobs, Buffalo with 72,800 jobs, Memphis with 100,800 jobs, Cleveland with 111,400 jobs and Jacksonville with 117,200 jobs.

Metropolitan areas specializing in service-producing industries

By 2000, most metro areas in the study, 29 out of 35, will have shares of total employment in service-producing industries , Finance, Services and Transportation, which are above the equivalent share for the national economy. The 10 metro areas with the highest share of employment in these industries will be: New York, San Francisco, Washington,D.C., Chicago, New Orleans, Denver, Los Angeles, Milwaukee, Boston and Philadelphia (see table).

Of these metro areas, only Boston and Denver[23] are projected to have a rate of growth of total non-farm employment which is above the national trend. Washington,D.C. and San Francisco will have rates close to the national trend, while New York City will have the third lowest rate of total non-farm employment growth among the 35 metro areas. In spite of low growth rates, the New York metro area will maintain a heavy specialization, and a large job base, in Finance, Services, Wholesale Trade and Transportation.

Among the 10 metro areas above, only Boston and Denver[24] will have annual rates of growth of Finance and Transportation employment above the national trend. All 10 areas will have rates of Services employment growth below the national trend. Their employment base in service-producing industries will not grow as fast as that of the U.S. economy as a whole, that is those of other smaller metro areas and of non-metropolitan areas. In spite of the accelerated shift of the national economy toward service-producing activities, these 10 metro areas will retain high shares of total employment in these sectors and will maintain their position as service centers although to a lesser degree than during the 1980's.

The Relative roles of Manufacturing and of service-producing activities in old and new industrial centers

Manufacturing is the only sector projected to decline in employment in some metro areas. For the entire period 1983-2000, the New York metropolitan area will be the only experiencing an employment decline; manufacturing job loss will amount to -0.68 percent annually. The decline of Manufacturing will set in earlier in the New York metropolitan area then in others; it will also be the only area experiencing a

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[23] This account of employment growth for Denver is based, as all projections, on historical data to the year 1983. The projection does not take into account the actual post-1983 performance of the Denver metropolitan area which has resulted in fast growing unemployment rates from 1984 through 1987.

[24] See above note.

decline during the early period 1983-1990. In the later period 1990-2000, however, the Manufacturing decline will affect several old industrial centers. They include besides New York; Cleveland, Buffalo, Chicago, Pittsburgh, Philadelphia and Detroit. In spite of these employment declines, Detroit and Cleveland will retain high manufacturing location quotients by 2000, whereas Buffalo, Pittsburgh and Philadelphia will have lost their relative specialization in manufacturing activities.

A number of the Manufacturing centers which emerged in the seventies are projected to have continued manufacturing job growth through 2000. Boston, an old manufacturing center having gone through significant decline from the 1950's through the 1970's, will have re-joined the ranks of manufacturing centers and will benefit from an unusual mix of services and goods-producing activities. Metro areas with relatively high rates of manufacturing job growth will reflect a specialization in the Durable Goods sector of Manufacturing during 1983 and 2000. These areas include Boston, San Jose, Minneapolis and Seattle but not El Paso, which is heavily specialized in Nondurable Goods production.[25]

Service-producing activities will contribute to the growth of old and new manufacturing centers in different ways. Some old manufacturing centers will have maintained, by 2000, shares of employment in service-producing industries which are higher than for the national economy. This will be true for Milwaukee, Philadelphia, Pittsburgh, and Buffalo. Detroit will, however, have a share which is barely above the national share. Yet, the heavier weight of service-producing activities in the economies of these metropolitan areas will be primarily due to the increased weight of Services to individuals and to businesses, and not to an increased preponderance

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[25] Nondurable Goods production entails an array of activities ranging from light assembly, such as garments and leather, to petroleum refining.

of Finance or Transportation employment. The pattern for more recent manufacturing centers is more mixed with a number of metro areas such as Dallas, Houston and Seattle, displaying a moderate but declining degree of specialization in Finance activities, while most have a steady but slight specialization in Services. By 2000, the share of non-farm employment in service-producing industries as a whole for most of the new industrial centers will be slightly above the equivalent national share. Notable exceptions will be San Jose, and Forth Worth which rely on services provided by their respective, geographically proximate, service-specialty areas: San Francisco and Dallas.

Areas of Heavy Mining Activity

Mining and extraction will remain very concentrated in a few areas by the year 2000, as it was in previous years.[26] Only 6 metro areas out of 35 will display a specialization in Mining. Of these, three -Houston, Oklahoma City an d Denver- will have location quotients above 3, indicating a heavy concentration of mining activity.[27] These three metro areas will retain their high relative specialization in Mining activity by experiencing moderate annual growth rates of Mining employment of 2.67 percent for Denver (14,800 jobs), 2.42 percent for Oklahoma City (11,600 jobs), and 2.33 percent for Houston (46,100 jobs). Among the other three metro areas, only Dallas will display an increased degree of specialization in Mining in 2000; the

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[26] While data on the Mining sector for 1983 are undisclosed in the OBERS series for a large number of metro areas, location quotients for 1984 which are based on another series, are reported in the historical report by Carre and Brown, BRA, November 1987. They indicate for 1984, the same pattern of geographic concentration as that projected for 2000.

[27] A location quotient of 1 for a metro area indicates that mining activity is as great a share of total employment in that area as it is in the national economy.

other two areas, Fort Worth and New Orleans, will remain specialized in Mining but to a lesser degree than in the early eighties.[28]

Areas with a concentration of mining activity are also projected to fare well in terms of total non-farm employment growth. Five metro areas out of six, Houston, Denver, Fort Worth, Dallas, and Oklahoma City are projected to have annual rates of growth of total non-farm employment which are above the national trend.

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[28] While a 1983 figure is undisclosed in the OBERS series for Fort Worth, a 1984 figure from another historical series indicates a higher degree of specialization in Mining than for 2000. See Carre and Brown, BRA, 1987.

Table 11. Metropolitan Area Employment and Population Levels, 2000 and 1983
(in thousands)

	Total Employment		Population		
	2000	1983	2000	1983	% Change 1983-2000
Atlanta	1,756.0	1,238.3	3,031.5	2,305.0	31.52
Baltimore	1,272.5	1,091.6	2,390.0	2,232.2	7.07
Boston	2,784.7	2,064.9	4,301.3	3,673.4	17.09
Buffalo	501.2	428.2	1,045.8	1,001.8	4.39
Chicago	3,528.1	2,973.0	6,130.6	6,119.0	0.19
Cincinnati	791.6	642.9	1,435.0	1,404.5	2.17
Cleveland	1,010.6	899.4	1,723.2	1,877.5	-8.22
Columbus	798.8	613.8	1,411.4	1,262.6	11.79
Dallas	1,757.4	1,269.6	2,712.3	2,170.2	24.98
Denver	1,301.6	873.4	2,108.5	1,561.5	35.03
Detroit	1,986.5	1,723.4	4,265.4	4,347.4	-1.89
El Paso	258.6	201.9	590.4	510.5	15.65
Fort Worth	707.8	502.3	1,371.6	1,095.8	25.17
Houston	2,378.1	1,592.7	4,262.1	3,161.4	34.82
Indianapolis	718.5	583.2	1,228.4	1,182.0	3.93
Jacksonville	498.1	380.3	942.4	772.8	21.95
Kansas City	895.6	734.0	1,599.7	1,464.4	9.24
Los Angeles	5,004.3	3,998.2	8,870.2	7,818.3	13.45
Memphis	537.2	437.3	1,007.3	930.3	8.28
Milwaukee	815.1	690.0	1,424.7	1,397.3	1.96
Minneapolis	1,668.5	1,211.8	2,688.6	2,207.9	21.77
Nashville	610.2	447.7	1,034.7	878.0	17.85
New Orleans	718.8	600.2	1,408.3	1,315.7	7.04
New York	4,813.9	4,207.9	8,433.2	8,290.6	1.72
Oklahoma City	669.8	493.5	1,138.4	957.1	18.94
Philadelphia	2,540.9	2,147.7	4,914.2	4,760.0	3.24
Phoenix	1,380.8	781.9	2,573.0	1,663.8	54.65
Pittsburgh	1,049.7	920.2	2,163.2	2,197.9	-1.58
St. Louis	1,397.7	1,151.4	2,537.5	2,396.5	5.88
San Antonio	692.9	529.7	1,389.7	1,168.8	18.90
San Diego	1,398.4	932.9	2,652.3	2,015.2	31.61
San Francisco	1,297.3	1,007.4	1,633.5	1,517.9	7.62
San Jose	1,266.5	806.8	1,716.7	1,359.7	26.26
Seattle	1,261.7	875.0	2,163.8	1,677.4	29.00
Washington, DC	2,562.5	1,964.9	3,948.0	3,369.6	17.17
United States	138,338.0	106,891.0	267,464.0	233,975.0	14.31

Source: U.S. Department of Commerce, Bureau of Economic Analysis, OBERS projections.

Table 12. Metropolitan Area Employment in Service Industries 1/ as Share of Total Employment, 2000, 1990, and 1983

	Percent			Rank in
	2000	1990	1983	2000
Atlanta	41.5	39.1	37.2	15
Baltimore	39.4	37.2	NA	23
Boston	43.2	41.7	40.3	9
Buffalo	40.4	37.8	35.5	19
Chicago	45.2	42.3	39.7	4
Cincinnati	38.2	36.2	NA	28
Cleveland	39.3	36.8	35.3	24
Columbus	40.8	37.8	35.2	16
Dallas	40.7	38.7	37.0	17
Denver	44.3	41.4	39.1	6
Detroit	38.4	36.4	NA	26
El Paso	28.8	27.9	27.1	35
Fort Worth	34.9	32.9	31.5	33
Houston	40.2	38.4	37.0	21
Indianapolis	37.2	35.6	NA	29
Jacksonville	42.1	39.9	38.3	13
Kansas City	41.7	39.5	37.7	14
Los Angeles	43.4	41.1	39.2	7
Memphis	40.7	38.3	NA	18
Milwaukee	43.3	40.2	37.9	8
Minneapolis	40.0	38.3	37.1	22
Nashville	38.3	36.4	NA	27
New Orleans	44.7	42.2	40.6	5
New York	56.0	53.2	50.5	1
Oklahoma City	33.4	31.9	31.0	34
Philadelphia	42.9	40.4	38.2	10
Phoenix	39.2	37.1	35.7	25
Pittsburgh	42.3	40.2	38.7	12
St. Louis	42.3	40.0	38.3	11
San Antonio	35.4	33.3	31.4	32
San Diego	36.7	34.4	31.8	30
San Francisco	53.6	52.3	50.9	2
San Jose	36.5	34.5	33.0	31
Seattle	40.3	38.0	36.5	20
Washington, DC	45.2	42.4	NA	3
United States	37.1	35.0	33.3	

Source: U.S. Department of Commerce, BEA, Regional Economic Analysis Division, OBERS Projections

1/ Service industries include Transportation and Public Utilities, Finance and Services. Boston Finance employment for 1983 is estimated, see Carre, 1988.

Table 13. Ranking of Metropolitan Areas by Average Annual Percentage Change in Total Non-farm Employment; 1983-2000

	AvgAnn % Change	Rank	Rank Rel. to U.S.	Total Change (in thousands)	Total Change in percent
Phoenix	3.43	1	16	598.5	77.49
San Jose	2.70	2	15	459.5	57.28
San Diego	2.44	3	14	465.2	50.56
Houston	2.40	4	13	786.8	49.66
Denver	2.38	5	12	428.0	49.24
Seattle	2.18	6	11	385.3	44.31
Atlanta	2.09	7	10	517.1	42.05
Fort Worth	2.06	8	9	206.3	41.54
Dallas	1.95	9	8	489.5	38.86
Minneapolis-St.Paul	1.93	10	7	458.7	38.48
Nashville	1.91	11	6	163.6	37.88
Oklahoma City	1.85	12	5	177.0	36.49
Boston	1.78	13	4	720.2	34.97
San Antonio	1.62	14	3	164.0	31.32
Jacksonville	1.60	15	2	117.2	31.01
Columbus	1.59	16	1	185.7	30.86
UNITED STATES	1.59			31,596.0	30.68
Washington, DC	1.58	17	-1	596.8	30.55
San Francisco	1.50	18	-2	289.8	28.84
El Paso	1.48	19	-3	57.0	28.41
Los Angeles	1.33	20	-4	1,006.0	25.20
Indianapolis	1.27	21	-5	136.7	23.88
Cincinnati	1.25	22	-6	149.2	23.49
Memphis	1.25	22	-6	100.8	23.41
Kansas City	1.21	24	-8	163.3	22.68
St. Louis	1.16	25	-9	246.9	21.71
New Orleans	1.07	26	-10	118.6	19.80
Chicago	1.01	27	-11	555.6	18.71
Philadelphia	1.00	28	-12	393.5	18.46
Milwaukee	1.00	28	-12	126.0	18.41
Buffalo	0.94	30	-14	72.8	17.15
Baltimore	0.91	31	-15	181.0	16.72
Detroit	0.85	32	-16	265.0	15.50
New York	0.79	33	-17	606.0	14.40
Pittsburgh	0.78	34	-18	129.9	14.21
Cleveland	0.69	35	-19	111.4	12.44

Source: U.S. Department of Commerce, Bureau of Economic Analysis, OBERS Projections

Appendix

List of Metropolitan Areas, by State

PHOENIX, AZ	PMSA
LOS ANGELES -LONG BEACH, CA	MSA
SAN DIEGO, CA	MSA
SAN FRANCISCO, CA	PMSA
SAN JOSE, CA	PMSA
DENVER, CO	PMSA
WASHINGTON,DC -MD -VA	MSA
JACKSONVILLE, FL	MSA
ATLANTA, GA	MSA
CHICAGO, IL	PMSA
INDIANAPOLIS, IN	MSA
NEW ORLEANS, LA	MSA
BALTIMORE, MD	MSA
BOSTON -LAWRENCE -SALEM -LOWELL -BROCKTON, MA	NECMA
DETROIT, MI	PMSA
MINNEAPOLIS -ST.PAUL, MN -WI	MSA
KANSAS CITY, MO -KS	MSA
ST. LOUIS, MO -IL	MSA
BUFFALO, NY	PMSA
NEW YORK, NY	PMSA
CINCINNATI, OH -KY -IN	PMSA
CLEVELAND, OH	PMSA
COLUMBUS, OH	MSA
OKLAHOMA CITY, OK	MSA
PHILADELPHIA, PA -NJ	PMSA
PITTSBURGH, PA	PMSA
MEMPHIS, TN -AR -MS	MSA
NASHVILLE, TN	MSA
DALLAS, TX	PMSA
EL PASO, TX	MSA
FORT WORTH -ARLINGTON, TX	PMSA
HOUSTON, TX	PMSA
SAN ANTONIO, TX	MSA
SEATTLE, WA	PMSA
MILWAUKEE, WI	PMSA

Table A. Central Cities1/ Finance Sector Location Quotients and Net Export(+)/Import(-) Role, 1969 and 1984, Ranked by 1984 Location Quotients

	1969		1984	
	Location Quotient	Net Import/ Export Role	Location Quotient	Net Import/ Export Role
San Francisco Co.	2.42	0.59	2.09	0.52
New York 2/	2.28	0.56	1.98	0.50
Boston - Suffolk Co.	2.37	0.58	1.90	0.47
Denver Co.	1.50	0.33	1.50	0.33
Jacksonville - Duval Co.	1.56	0.36	1.39	0.28
Baltimore (independent city)	1.41	0.29	1.36	0.27
Philadelphia Co.	1.40	0.29	1.25	0.20
Indianapolis - Marion Co.	1.50	0.33	1.25	0.20
Houston - Harris Co.	1.19	0.16	1.22	0.18
Oklahoma City - Oklahoma Co.	1.28	0.22	1.18	0.15
San Antonio - Bexar Co.	1.04	0.04	1.17	0.15
Nashville - Davidson Co.	1.59	0.37	1.15	0.13
St. Louis (independent city)	1.29	0.23	1.12	0.11
New Orleans - Orleans Co.	1.34	0.25	1.09	0.08
Memphis - Shelby Co.	0.99	-0.01	1.04	0.04
El Paso Co.	0.76	-0.32	0.91	-0.09
District of Columbia	1.05	0.05	0.83	-0.20

Table B. Central Cities1/ Services Sector Location Quotients and Net Export(+)/Import(Role, 1969 and 1984, Ranked by 1984 Location Quotients

	1969		1984	
	Location Quotient	Net Import/ Export Role	Location Quotient	Net Import/ Export Role
Boston - Suffolk Co.	1.39	0.28	1.53	0.35
District of Columbia	1.43	0.30	1.45	0.31
San Francisco Co.	1.29	0.23	1.40	0.29
New York 2/	1.32	0.24	1.36	0.26
New Orleans - Orleans Co.	1.42	0.30	1.35	0.26
Philadelphia Co.	1.20	0.17	1.32	0.24
Baltimore (independent city)	1.19	0.16	1.31	0.23
St. Louis (independent city)	1.29	0.23	1.28	0.22
Denver Co.	1.17	0.14	1.19	0.16
Nashville - Davidson Co.	1.25	0.20	1.17	0.15
Memphis - Shelby Co.	1.11	0.10	1.06	0.06
Houston - Harris Co.	1.21	0.17	1.06	0.06
Indianapolis - Marion Co.	0.90	-0.11	1.01	0.01
San Antonio - Bexar Co.	0.95	-0.06	0.95	-0.05
Jacksonville - Duval Co.	1.04	0.04	0.94	-0.06
Oklahoma City - Oklahoma Co.	0.98	-0.02	0.91	-0.10
El Paso Co.	0.80	-0.25	0.81	-0.24

1/Central city counties.
2/ Bronx, Kings, New York, Queens and Richmond counties.

Table C. Central Cities1/ Manufacturing Sector Location Quotients and Net Export(+)/ Import(-) Role, 1969 and 1984, Ranked by 1984 Location Quotients

	1969		1984	
	Location Quotient	Net Import/ Export Role	Location Quotient	Net Import/ Export Role
Indianapolis - Marion Co.	1.20	0.17	1.08	0.07
St. Louis (independent city)	1.15	0.13	1.04	0.04
El Paso Co.	0.64	-0.57	1.00	0.00
Nashville - Davidson Co.	0.89	-0.12	0.81	-0.24
Philadelphia Co.	1.07	0.07	0.78	-0.28
Memphis - Shelby Co.	0.83	-0.20	0.71	-0.40
New York 2/	0.86	-0.17	0.68	-0.46
Baltimore (independent city)	0.88	-0.13	0.65	-0.54
Oklahoma City - Oklahoma Co.	0.54	-0.86	0.64	-0.57
Houston - Harris Co.	0.72	-0.38	0.62	-0.62
Jacksonville - Duval Co.	NA	NA	0.50	-1.00
San Antonio - Bexar Co.	0.39	-1.57	0.49	-1.04
Boston - Suffolk Co.	0.55	-0.83	0.49	-1.03
Denver Co.	0.61	-0.65	0.48	-1.10
San Francisco Co.	0.44	-1.25	0.44	-1.26
New Orleans - Orleans Co.	0.42	-1.37	0.37	-1.72
District of Columbia	0.13	-6.64	0.13	-6.73

Table D. Central Cities1/ Mining Sector Location Quotients and Net Export(+)/Import(-) Role, 1969 and 1984, Ranked by 1984 Location Quotients

	1969		1984	
	Location Quotient	Net Import/ Export Role	Location Quotient	Net Import/ Export Role
Oklahoma City - Oklahoma Co.	3.62	0.72	6.35	0.84
Houston - Harris Co.	4.19	0.76	5.82	0.83
New Orleans - Orleans Co.	3.40	0.71	4.26	0.77
Denver Co.	1.96	0.49	3.46	0.71
San Antonio - Bexar Co.	0.76	-0.31	1.10	0.09
San Francisco Co.	0.13	-6.84	0.38	-1.64
El Paso Co.	0.17	-4.78	0.35	-1.83
Indianapolis - Marion Co.	0.18	-4.64	0.25	-3.08
Nashville - Davidson Co.	0.11	-8.20	0.22	-3.58
St. Louis (independent city)	0.14	-6.04	0.13	-6.54
Memphis - Shelby Co.	0.11	-8.14	0.13	-6.99
New York 2/	0.08	-11.35	0.10	-8.70
Jacksonville - Duval Co.	NA	NA	0.05	-17.59
District of Columbia	NA	NA	0.05	-18.15
Baltimore (independent city)	NA	NA	0.03	-29.79
Philadelphia Co.	0.01	-82.74	0.03	-30.84
Boston - Suffolk Co.	0.03	-36.13	0.02	-39.18

1/Central city counties.
2/ Bronx, Kings, New York, Queens and Richmond counties.

Table E. Central Cities1/ Transportation Sector Location Quotients and Net Export(+)/ Import(-) Role, 1969 and 1984, Ranked by 1984 Location Quotients

	1969		1984	
	Location Quotient	Net Import/ Export Role	Location Quotient	Net Import/ Export Role
New Orleans - Orleans Co.	2.17	0.54	1.84	0.46
Denver Co.	1.67	0.40	1.82	0.45
St. Louis (independent city)	1.55	0.35	1.70	0.41
San Francisco Co.	2.01	0.50	1.63	0.39
Jacksonville - Duval Co.	1.51	0.34	1.54	0.35
Memphis - Shelby Co.	1.21	0.17	1.47	0.32
Baltimore (independent city)	1.55	0.35	1.46	0.31
New York 2/	1.40	0.28	1.39	0.28
Boston - Suffolk Co.	1.37	0.27	1.36	0.27
Houston - Harris Co.	1.42	0.29	1.34	0.25
Nashville - Davidson Co.	0.98	-0.02	1.32	0.24
Philadelphia Co.	1.24	0.19	1.19	0.16
Indianapolis - Marion Co.	1.14	0.13	1.09	0.08
El Paso Co.	1.08	0.07	1.05	0.05
Oklahoma City - Oklahoma Co.	1.15	0.13	1.05	0.05
District of Columbia	1.01	0.01	0.79	-0.26
San Antonio - Bexar Co.	0.59	-0.69	0.74	-0.36

1/Central city counties.
2/ Bronx, Kings, New York, Queens and Richmond counties.
Note: The location quotient is (Eij/Ej)/(Ei/E) where
Eij-Employment in i sector in j central city county
Ej -Total employment in j central city county
Ei =Employment in i sector in the nation
E -Total employment in the nation
The net export/net import concept is based on the location quotient (LQ) and is equal to (1 - (1/LQ))

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System